MACLEAN (D.)

Some Recent Experiences in Clinical Surgery.

(Illustrated by Notes of Cases, Pathological Specimens, and Patients.)

BY

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SOME RECENT EXPERIENCES IN CLINICAL SURGERY.

(Illustrated by Notes of Cases, Pathological Specimens, and Patients.)

BY DONALD MACLEAN, M. D.

The first subject to which I desire to call the attention of the Association is the common one of diseased knee joints.

Two cases have recently occurred in my public practice which have seemed worthy of presentation here, for the reason that they represent in a practical manner two important pathological conditions, demanding widely different methods of treatment, viz: in the one resection of the joint, in the other amputation of the thigh. A pathological specimen obtained from each one of these cases I have brought with me for inspection by those members of the Association who may feel an interest in the subject. Not only so, but one of the patients, viz., the one in which resection was performed, is present in the flesh for the purpose of giving ocular demonstration of the result of his treatment.

Case 1. Charles M. ——, æt. 19, Alpena, Mich., Englishman. History: about seven years ago, patient says that he had his left knee bruised between two logs. Notwithstanding the use of liniments, plasters, blisters, etc., the effects of this injury persisted, and the joint grew steadily worse until August, 1884, when patient came to the University hospital at Ann Arbor, where Dr. Sullivan, in my absence, examined the knee and applied a plaster of Paris cast. From this the patient states that he experienced great relief.

On October 10th following, patient returned to the hospital

and was examined by myself. The symptoms at that time pointed to chronic synovitis, and I advised continuance of the treatment by plaster cast, together with general tonics. He soon left the hospital feeling much relieved and in good spirits.

On November 23, 1885, patient once more entered the hospital. He then stated that all had gone well with his knee until March, 1885, when he had the misfortune to give his knee a very severe wrench, in consequence of which he was confined to bed for two months. From that time until the date of his admission to the hospital the joint continued painful and swollen in spite of treatment, which consisted chiefly of extension by weight and pulley, with plaster casts.

On admission at this time, November 23d, the general swelling of the joint; the thickened, gelatinous condition of the synovial membrane; the deep, gnawing pain, aggravated at night; the great tenderness on pressing the joint surfaces together, all testified unmistakably to general degeneration of all the joint structures, with ulceration of the articular cartilages. At the same time it seemed quite certain that the disease was confined to the immediate neighborhood of the articulation.

In view of all the facts stated, I advised resection, and the patient gladly assenting, the operation was performed on January 14, 1886, in presence of the medical class. It was accomplished by making one long curved incision over the front of the joint, dividing the ligamentum patellæ, but retaining it and the patella in the superior flap. The bones were not wired, but the flaps were drawn firmly together and supported by deep button sutures. The dressing consisted of antiseptic gauze and cotton wadding applied all over the surrounding parts, after they had been freely irrigated by a solution of mercuric bichloride, 1 to 2,000. Over these dressings a plaster of Paris cast, with a long posterior splint, was applied.

January 18th. Dressings removed, when only about half a drachm of discharge could be detected. Irrigation, antiseptic dressings and a cast were applied. No rise of temperature

occurred, and healing by first intention took place throughout nearly the whole extent of the wound.

January 19th. A wrought iron splint, together with a plaster cast, was so applied as to admit of the thorough dressing of the wound, from which, however, there was not at any time much discharge.

February 20th. Walked out with crutches.

June 3d. Patient appeared before the class and walked from one end of the amphitheatre to the other without crutch or cane. His general health is completely restored, and here he is to speak for himself. (Patient looked healthy and walked freely without crutch or cane in presence of the Society. He still wore a light plaster cast as a precautionary measure.)

The specimen obtained from this case was exhibited to the Society, and constituted a beautiful illustration of ulceration extending right through the cartilages of the joint and affecting the bones to a considerable depth. Elimination of the disease, consolidation of the bones, and consequent restoration of the limb to usefulness, will, in young adults, be more surely and quickly obtained in this form of disease by resection than by any other mode of treatment; that is to say, after the usual conservative procedures have been tried and have failed, as they will sometimes do.

Case 2. The following case is interesting and instructive as showing a state of matters in which resection was contra-indicated and a more radical procedure called for.

John R. ——, æt. 37, Bennington, Mich. In January, 1875, patient's left knee was injured by a block of wood falling on it, but from this complete recovery seemed to have been attained. Two years later patient says that he fell when running and severely wrenched the joint. A swelling in the popliteal space resulted from this injury, but has long since entirely disappeared. On admission the knee presented very little external signs of disease; it was not swollen nor deformed. Nevertheless it was immovable and extremely painful, more especially at night—so

much so that sleep was greatly interfered with. Patient stated that last year he was under Dr. T. A. McGraw's care, at St. Mary's Hospital, Detroit, the treatment then consisting mainly of the application of the actual cautery and the use of plaster of Paris casts. After four months of this treatment he says that he was not any better.

It should be noted here that never during all the years during which his case had lasted had he been confined to bed, or the knee been subjected to continuous extension and counter extension. This was at once resorted to at the University hospital, but with no appreciable benefit beyond securing sleep. Amputation was advised as the only alternative, on the following grounds:

First—The long standing and intractable character of the disease testified clearly to the fact that the structural lesions were too deep seated and too extensive to admit of effectual relief, except by a radical operation.

These lesions I conceived to be the following: (*a*) Ulceration of the articular cartilages and joint surfaces; (*b*) infiltration (fungous) more or less thorough of all the articular structures; (*c*) osteomyilitis of the femur to an extent impossible to determine precisely without an operation.

Second—The patient's age and his worn-out condition, as well as the extent to which the thigh bone was affected, contra-indicated the operation of resection.

Third, and lastly, the patient himself was utterly tired of his limb, and nothing would satisfy him except amputation. I am able to show you the specimen obtained from this case, one glance at which is sufficient to demonstrate the perfect propriety of the operation. The medullary canal of the femur is seen to be disorganized all the way up to the upper third. I may state, in conclusion, that this patient made a somewhat slow but ultimately complete recovery, and left the hospital with an excellent stump on April 2d.

If time and opportunity permitted, I might present here a good

many cases from my own experience, to prove that such cases as the two here recorded are now-a-days frequently saved from all operative interference by proper care and management applied *soon enough.* I refer to physiological rest by continuous extension and counter extension plaster of Paris casts, which afford rest, protection and pressure, and in certain carefully selected cases in which there is deep pain, with marked nocturnal exacerbations; the *actual cautery.* When the medullary canal of the femur has become disorganized by destructive inflammation, as in the case here recorded, amputation is, in my opinion, the only resource left.

CARCINOMA MAMMÆ.

At the meeting of this Society, held in Grand Rapids two years ago, I reported the case of Mrs. C., on whom I had operated eight different times within one year, for cancer of the breast, the disease having returned in seven different spots after the breast had been amputated. Inasmuch as it is now five years and a half since the first, and four and a half since the last operation, it seemed to me that it might be interesting to the members of the Association to have the privilege of seeing and examining this patient with her numerous scars, for themselves, and she is here now for that purpose, and it will be seen that she is in excellent health, and that there is as yet no symptoms of a return of her malignant and inveterate enemy. The practical deductions from this inspiring case were fully elucidated in my former report.

P. S.—In the former paper only *six* operations are described, whereas the current number was *eight.* Two were accidentally overlooked in copying from the hospital case book.

The only other patient that I wish to occupy the attention of the Association with, on this occasion, is this man, for whom on March 1st, of this year, I performed Syme's ankle-joint amputation. It will be observed that the stump is of perfect form and constituted for the all-important function of bearing the weight of the patient's body, and that, too, *without anything in*

the shape of an artificial appliance. You see that although as yet but recent, even now he can stamp on this hard floor with his naked stump without flinching. This is the only stump in the body, so far as I know, in which this can be done, unless, perhaps, it is in some of the modifications of Syme's operation. The following is a condensed history of this case:

A. C. C. ——, æt. 40, farmer. Last spring, while roller skating, patient says that he sprained his ankle. Some weeks afterwards, viz., in the latter part of May, the foot as a whole, suddenly became inflamed and swollen, but was *not* painful. In fact it never at any time was painful. Pus formed at various points and was evacuated, and sinuses resulted which refused to close. *On admission*, the foot was greatly swollen, the discharge from the sinuses was slight in quantity, and ichorous in quality. On probing the sinuses no dead nor carious bone could be felt. The superficial textures of the foot were evidently involved in the universal process of disorganization. All voluntary power over the joints of the foot and toes was lost, and the foot had come to be a useless and unsightly burden, with no reasonable hope of being benefited by any form of treatment. In these circumstances, amputation through the ankle-joint was recommended, and at once performed. The recovery has been fairly rapid. Seven weeks from the day of operation, patient appeared before the class and stamped with his naked stump on the floor with as much force as any one could do with a heel that had never been diseased at all. He was then dismissed from the hospital, and has since been at his home, from whence he has kindly come to-day, a long distance, for the purpose of bearing the most unanswerable testimony to the elegance and practical perfection of Syme's ankle-joint amputation.

On dissection, the foot (which I am glad to be able to exhibit to those members of the Society who may desire to examine it) was found to constitute a perfectly typical case of what Billroth describes as "*ostitis fungosa*, where there is as yet no

destruction of the inflammatory new formation, but where interstitial granulation tissue has grown all through the bone."—(Billroth's Surgical Pathology, p. 413, D. Appleton & Co., 1872.)

The morbid process in this instance, it will be plainly seen, had not confined itself to the osseous and articular tissues, but had involved and disorganized the muscular, tendonous, and other structures of the foot as well. The disease had not, however, passed beyond the ankle joint. The specimen seems to me to be a very striking one, indeed, well worthy the careful inspection of those interested in surgical pathology.

NERVE STRETCHING FOR SCIATICA.

J. R. ——, æt. 35, laborer, Harrison, Mich.; admitted March 22, 1886. Patient states that for fourteen years past he has suffered more or less from sciatica. For four years his sufferings have been very severe and almost constant. On examination it was found that the whole trouble was confined to the sciatic nerve, and that it centered chiefly immediately behind the hip joint.

The administration of croton oil in 2-drop doses did no good, neither did the application of fly blisters over the seat of the pain.

April 9th. Chloroform was administered, the sciatic nerve exposed by a straight incision, commencing above the lower margin of the gluteus maximus and extending downwards over the biceps muscles for six inches. The nerve was then easily found, the finger hooked under it, and force enough used to lift the leg right off the table. The force was applied so as to draw the nerve downwards from the trunk, and then in the opposite direction, viz., upwards from the foot.

The wound healed by first intention, and the sciatica at once disappeared, although the patient complained of a good deal of pain of a different character from the old pain.

April 25th. Having had some local pain, together with a marked rise of temperature, my assistant, Dr. Sullivan, detected

some deep fluctuation at the seat of operation, and at once made a free incision and evacuated 18 ounces of pus. From this time on till May 25th steady improvement took place. The sciatica had disappeared, and he was dismissed *cured.*

In January, 1880, I performed this operation in a very aggravated case, and at the meeting of this Association at Lansing, in May of that year, I reported the case as a perfect success. Six years have now elapsed since that report was made, and I am happy to be able to record now the fact that up to the present time that patient has continued to enjoy absolute immunity from the painful disease which for two years had entirely incapacitated him for work of any kind. Since then I have performed the operation many times, and with almost uniform success. In one case the relief was so long delayed that it seemed very doubtful whether the operation had anything to do with its ultimate occurrence.

On the whole, the testimony based on my experience is unequivocally in favor of nerve stretching as a safe and reliable means of relief in this obstinate and painful affection.

STONE IN THE BLADDER, WITH A NUCLEUS OF CHEWING GUM.

Case 1. C. J. ——, æt. 23, Orleans, Mich.; admitted October 27, 1885. For five years patient has suffered from symptoms of stone in the bladder, the result of passing a piece of chewing gum into the bladder. On examination the stone was at once discovered, and the operation of lithotomy recommended.

October 29th. The left lateral operation was performed, and a stone weighing 278 grains was extracted. A careful search was made, and the piece of gum was found and is here shown, along with the fragments of stone. Patient made good recovery.

Case 2. W. L. ——, æt. 11, Harrison Co., Mo.; admitted November 16, 1885. When eight months old patient suffered from measles, whooping cough and diarrhœa in rapid succession, and at that time commenced to have painful urinary symptoms, and from these he has continued to suffer more or less ever since.

On examination, the presence of several calculi was at once detected, and the left lateral operation performed. Three stones were very readily removed, and a fourth discovered. The latter was removed with some difficulty, owing to the fact that it was adherent to the roof of the bladder by a broad, rough surface, distinctly shown in the specimen here presented. By means of the forefinger of my left hand, hooked up behind the pubes, I succeeded in dislodging this calculus, which was then easily removed from the bladder with the forceps. Patient made a rapid and complete recovery.

Case 3. The following case is not exactly a recent one, as it occurred two years and a half ago, and still I desire to record it here on account of some interesting and peculiar facts involved in it:

Mr. Le V. ——, æt. 42, had the misfortune to fall from a scaffold, in July, 1879, injuring his spine so severely that paralysis, almost total, of the lower extremities and the sphincters, resulted. Patient spent a whole year in the Homœopathic hospital at Ann Arbor, but without receiving any benefit whatever. In process of time patient's means became exhausted, and he was compelled to become an inmate of the Wayne county poor house, where I was asked by Dr. E. O. Bennett, the Superintendent, to see him, on March 27, 1884.

I found him suffering intensely from symptoms of stone in the bladder, with absolute incontinence of urine. His condition was indeed wretched. I at once determined to do what I could to afford him relief, and accordingly performed the left lateral operation, and removed the two large stones which I have already exhibited to many of the members of this Society, each stone being larger than a pullet's egg. The result of this operation was better than I had dared to hope for. All pain was immediately relieved, the wound healed kindly, and, wonderful to relate, the patient at once and permanently recovered complete control over the sphincter of his bladder, and from that time to

the present has continued to enjoy a painless and comparatively happy existence.

Case 4. *Stone in the female bladder.* On September 24th, 1885, Dr. Hayden, of Lansing, called me to see a lady patient of his, who was suffering severely from symptoms of stone in the bladder. On examination the diagnosis of stone was at once confirmed. Among the other distressing symptoms, incontinence of urine was one of the most urgent. Chloroform having been administered, the urethra was rapidly dilated by forceps, and the two large oxalate of lime stones, here presented, were removed. Weight, 448 grs. Patient recovered without a bad symptom. The incontinence of urine very soon disappeared, and her health became and has since remained better than it had been for many years.

Photographs and Specimen of Cystic Tumor of the Mouth. C. S. ——, æt. 2, Constantine, Mich.; at birth the attending physician observed a small cystic tumor, which on pressure yielded a slight discharge of bloody fluid. The tumor has steadily grown with the child's mouth. It has pushed the lower teeth outwards and now occupies the whole of the cavity of the mouth in front of the tongue, which is displaced upwards and backwards. The tumor protrudes from the mouth, and constitutes a most unsightly deformity. It is painful on pressure. Careful examination proved that the sublingual glands and ducts were not involved in the cyst, although when the mouth is closed it presses upon and obstructs the mouths of the ducts. When the mouth is open and the tumor protruding, the saliva starts from the mouths of the ducts with a spurt, and continues to flow freely so long as the mouth remains open.

The treatment consisted in the excising of a large section of the wall of the cyst, and the application of strong tincture of iodine freely to the secreting surface. The fluid contents were whitish and of a glary nature. The hemorrhage followed the section of the cyst wall, requiring the ligature of two very active arteries. For a few days the little patient suffered considerably

from acute inflammatory symptoms, with general fever, but these soon passed off, and on February 4th he was dismissed cured.

RESECTION OF SHOULDER JOINT FOR CARIES FOLLOWING DISLOCATION.

A. R.——, æt. 22, Bangor, Mich. Patient states that on May 15, 1883, he fell into the hold of a vessel and received a dislocation of the right shoulder joint. The dislocation was reduced, but inflammation set in and an abscess formed. For this he was treated at Albany, N. Y., where he says the abscess was opened, and where he says the operation of amputation at the shoulder was urged upon him by two doctors, but he declined. He was admitted to the University hospital in December, 1884, and at that time his arm was bound firmly down by old adhesions, so that there was practically no movement at the shoulder joint. There was a suppurating sinus which led down to the head of the humerus, which was found to be not *necrosed* but *carious*. Resection was advised and performed December 23d, 1884. The operation was a very difficult one, owing to the matting together of all the tissues involved, and more especially so from the fact that the head of the bone was eaten out by the caries, leaving a sort of hook-shaped process above, very difficult to distinguish from the acromion process. Patient made a rapid recovery and soon left the hospital. Efforts were made to obtain information from him as to the ultimate result of his case, but in vain, until a few days ago, when I was greatly pleased to receive the following most considerate and courteous letter containing the much wished for information. I am also happy to be able to exhibit the specimen obtained from this case.

BUXTON, DAK., May 31, 1886.

DEAR DR.—A patient came to consult me about some slight ailment the other day, by name of Randall. On examination I noticed a shortened os humerus on the right side. Questioning him he informed me that *you* performed resection of head of humerus about a year ago last Christmas, at Ann Arbor. Thinking you would like to hear the result of your operation, I take the liberty to report that he has got complete motion of arm, but cannot raise it above the horizontal. It is strong, and inconveniences him very little. He was engaged in using a wheelbarrow on railroad grading, and seemed to do his

work with as much ease as if both arms were of an equal length. He is in good health and loud in his praises of you. His condition could not be better than it is. Yours very truly, J. GRASSICK.

In addition to the pathological specimens referred to in the foregoing list of cases, I am also pleased to call attention to the two very remarkable specimens of cystic tumor of the kidney. These two specimens were obtained by the operation of nephrectomy, and both patients recovered, but this paper is already so lengthy that I dare not venture to relate the details of these cases on the present occasion, further than to state that they were both operated on by abdominal section, and that one was fully and correctly diagnosed beforehand, while the other was supposed to be an ovarian tumor.